

## 3.6 FIRE AND TIMBER HARVEST

Historically, the entire region within and around AVWA and SCWA was covered by coniferous forests consisting of large fire-tolerant species. These forests experienced wildfires about every 10 years. These frequent fires kept understory fuels low which, in turn, resulted in fires of low intensity. In the late 1800s and early 1900s, the forests were logged, and logs were removed using railroads and donkeys. Regional timber was used in California gold mines, in the Nevada Comstock mine, and for construction of the transcontinental railroad (Noxon, pers. comm., 2007). As a result of those timber harvest practices and subsequent fire suppression practices, fire intolerant species such as incense cedar and white fir grew abundantly in the region and fuels have become excessive. In addition, because the area is close to timberline and very dry, healthy forests do not regenerate quickly on their own within a severe fire scar area. Rather, these burnt areas typically require active restoration to rehabilitate the forests (Rinella, pers. comm., 2007).

Large wildfires near the wildlife areas threaten people, firefighters, houses and commercial structures in Sierra Brooks, Loyaltown and other communities, and ecosystem functions. Large wildfires can be costly and destructive. They reduce recreation values of the region, harm timber resources, cause increased erosion and flooding, degrade habitat, and require expensive reforestation.

Two major fires have occurred in AVWA, SCWA, and surrounding forest land. The Cottonwood Fire, which occurred in 1994, burned 2,000 to 3,000 acres in the eastern and southern portions of the wildlife areas, and approximately 46,000 acres in the region. The Harding Fire, which occurred in 2005, burned approximately 600 acres in the wildlife areas, and about 2,000 acres in the region (Lidberg, pers. comm., 2007). Both fires were caused by people, although lightning fires are also common in the area.

The Tahoe National Forest (TNF) harvested many small insect salvage sales around the AVWA prior to the Cottonwood Fire. During the spring of 1995, after the Cottonwood Fire, an emergency timber harvest plan was approved and harvested, including portions of both wildlife areas. This salvage removed most of the fire-killed timber from the region. Because the Cottonwood Fire was a continuing source of environmental problems in the Antelope Valley watershed and elsewhere, the USFS attempted to stabilize the area as part of their salvage mitigation (CAL FIRE 1996).

### 3.6.1 TIMBER HARVEST PLAN

In 1996 a Timber Harvest Plan (THP) covering much of the AVWA was approved to harvest timber from 967 acres. The objective of the harvest was to develop the existing even-aged young growth stand of healthy trees in the 12”–24” DBH class using a commercial thinning prescription. This was applied to promote timber growth and improve forest health as per 14 CCR 933.3 (a) (CAL FIRE 1996). The goal of this timber harvest was to enhance deer habitat and reduce fire hazards by promoting a more natural forest ecosystem (Lidberg, pers. comm., 2007). The thinned stand consisted of a homogeneous 120 to 180 year old CAL FIRE Site III ponderosa pine forest with basal area averaging 220 sq. ft. (basal area is a measure of stand density developed by foresters. It is the total cross-sectional area of the trees in a stand, at breast height [4.5 feet above the ground], measured in square feet per acre). Thinning reduced stocking levels to no less than 75 sq. ft. of basal area, retaining healthy dominant trees from the preharvest stand. It was anticipated that the postharvest stand would experience a release in diameter growth due to the improved conditions created by eliminating conifer competition (CAL FIRE 1996).

The Department requested and received an extension on the THP, which otherwise would have expired in 1999, and timber harvest was completed in 1999, 2000, and 2001. The Department also prepared a collection agreement that reserved a percentage of the timber harvest receipts (approximately \$30,000) to pay the Sierraville Ranger District to conduct prescribed burning in 2002 (Lidberg, pers. comm., 2007).

Some of the positive results of the timber harvest and prescribed burning were realized when the Harding Fire broke out in 2005, three years following harvest. The hot, high fire dropped to ground level and lost intensity

when it reached the treated areas of AVWA, facilitating its control by fire fighters and preventing its spread to Loyalton or the Sierra Brooks development (Lidberg, pers. comm., 2007).

### **3.6.2 FIRE RESPONSE**

Fire response in the wildlife areas is the responsibility of the Sierraville Ranger District, part of the TNF. The Sierraville Ranger District uses the universal Incident Command System, a defined emergency response protocol, to respond to fire emergencies in the region. The Sierraville Ranger District is responsible for Incident Command, although CAL FIRE (Truckee Fire Station) is a Cooperating Agency and is called in to help as needed (Noxon, pers. comm., 2007).

The designated Incident Commander during a fire event is the Sierraville Ranger District Fire Management Officer or one of four other Duty Officers (two at the Sierraville Ranger District, two at the Truckee Ranger Station), depending who is on call at the time.

The Incident Commander is in charge of managing all aspects of a fire response. All other incident response positions are assigned to appropriate emergency response personnel (including members of cooperating agencies) depending on who is available at the time of a fire event. The Operations Section Chief develops the daily fire-fighting plan and directs the emergency response people. The Logistics Section Chief plans for and arranges fuel, food, water, sleeping arrangements, etc. The Plans Section Chief implements the daily plan put together by the Operations Chief, ordering the people and equipment needed at specified locations. If a very large fire occurs, a preassembled Incident Management Team can be called in from locations around the country (Noxon, pers. comm., 2007).

The regional Emergency Command Center (ECC) is located in Grass Valley. The ECC maintains emergency response staffing plans, dispatch plans, and an emergency response computer program called WildCAD. When the ECC receives a report of fire, the WildCAD program assimilates specific variables (such as the size of the fire, its location, weather conditions) and prepares a response plan detailing specific resources needed to fight the fire (e.g., specific equipment and staff from specific locations). The ECC dispatches these resources, and the Incident Commander modifies the dispatch as needed according to the progress of the fire. The ECC or the TNF Nevada City office would be responsible for notifying the Department of a fire on their property. The Sierraville Ranger District has an agreement with the local school district to use their facilities as an incident command post in the event of a fire. They also have data outlining potential water sources, access points, evacuation routes, staging areas, and other information that may be necessary for responding to a fire event (Noxon, pers. comm., 2007).

### **3.6.3 FIRE MANAGEMENT PLAN DEVELOPMENT**

Although the TNF has a process established for responding to a fire in the region, an AVWA and SCWA Fire Management Plan is needed to manage the wildlife areas to restore a fire tolerant forest with high quality habitat values, and to guide responses to fire emergencies. The development of a Fire Management Plan would include compiling and developing fire response information that is specifically relevant to the wildlife areas. It would include guidance for on-going timber, fuels, and fire management within the wildlife areas with a goal of returning the forest to a natural age structure and species composition. It would also guide coordination of fire preparedness and response with local and regional fire management agencies. Preparing a Fire Management Plan has been identified as a “step-down action”, a term used by the Department to describe an activity that is currently beyond the scope of the LMP and will require additional effort following the preparation and adoption of this LMP.

Tasks have been included in the Fire Management Element (see Chapter 4) of this LMP to facilitate the coordination of fire preparedness and response with local and regional fire management agencies. In addition to implementing these tasks, development of the Fire Management Plan would include a review of the Herger-Feinstein Quincy Library Group (QLG) Forest Recovery Act Pilot Project Environmental Impact Statement (EIS)

and the Sierra Nevada Forest Plan for potential applicability to the wildlife areas. Although the QLG project is primarily a prescription for resource management (including fuels management, special status species protection, and habitat restoration) on Federal lands, it may be indirectly applicable to the wildlife areas because the Sierraville Ranger District follows this prescription in managing the surrounding TNF lands, and they are responsible for fire response in the wildlife areas. The QLG prescription may be a useful reference in defining an on-going timber, fuels, and fire management prescription within the wildlife areas.

In addition, the Fire Management Plan should include information such as:

- ▶ Water sources
- ▶ Access information including road access (labeled on maps and signage in the field), gate access, and available helicopter landing zones
- ▶ Evacuation routes
- ▶ Contact list
- ▶ Maps to distribute to cooperative agencies
- ▶ Predetermined command post options such as a community center, school, church, parking lot, or field site
- ▶ For potential command post options, obtain 24-hour contact information and record what resources are available, such as:
  - parking area
  - equipment available
  - power capabilities
  - number of phone lines
  - satellite dish
  - internet